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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/773,584

02/02/2001

Yuichi Kurosawa

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05/06/2004

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EXAMINER

WORKU, NEGUSSIE

ART UNIT

PAPER NUMBER

2626

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/773,584

Applicant(s)

KUROSAWA, YUICHI

Examiner

Negussie Worku

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. Examiner respectfully considered applicant's information disclosure statement (IDS) filed May 02, 2001 a commonly assigned U.S. patent application No.09/472,243 and No. 09/773,585.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-9, are rejected under 35 U.S.C. 102(b) as being anticipated by Hoshino et al. (USP 5,933,22).

With respect to claim 1, Hoshino et al. discloses a film scanner (film scanner 10 of fig 2) for reading an image formed on a film, (film shown in fig 1) said film scanner (10 of fig 1) comprising: an imaging device (line sensor 16 of fig 1) that senses a part of said image; a transport table (carrier A of fig 2) that supports said film, see col.4, lines 58-60; a stepper motor (step motor 26 of fig 4) that moves at least one of said imaging device (line sensor 16 of fig 2) and said transport table (carrier A and B of fig 2) in a predetermined direction, so that said imaging device (line sensor 16 of fig 2) can sense

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the whole of said image 9film of fig 2); and a motor drive (motor drive 25 of fig 4) circuit that pulse-drives said stepper motor (step motor 26 of fig 4) in steps, said motor drive circuit 925 of fig 4) enabling micro-stepping control of the stepper motor, see (col.5, lines 38-40).

With respect to claim 2, Hoshino et al. discloses a film scanner (film scanner 10 of fig 2), wherein said motor drive circuit (25 of fig 4) drives said stepper motor (stepper motor 26 of fig 4) in basic steps when said image is read in a pre-scan, see col.8, lines 30-38), and drives said stepper motor (26 of fig 4) by minute steps smaller than said basic step under said micro-stepping control when said image is read in a main-scan (CPU 21 of fig 4, controls drives motor 26 of fig 4, see col.7, lines 3-5).

With respect to claim 3, Hoshino et al. a film scanner (film scanner 10 of fig 1) wherein said minute step in said main-scan is set to $1/n$ of said basic step (n being a natural number of 2 or more).

With respect to claim 4, Hoshino et al. a film scanner (10 of fig 4), wherein said motor drive circuit (26 of fig 4) is configured to enable switching to drive (SW1 of fig 4) in a 2-2 phase excitation mode in basic full-steps, drive in a 1-2 phase excitation mode in half steps, drive in a W1-2 phase excitation mode in quarter steps, and drive in 2W1-2 phase excitation mode in eighth steps.

With respect to claim 5, Hoshino et al. a film scanner (film scanner 10 of fig 4), wherein said motor drive circuit (25 of fig 4) drives said stepper motor (25 of fig 4) in said 2-2 phase excitation mode (CPU 21 of fig 4 selects) in said pre-scan, see (col.8, lines 37-40) selects one of said 1-2 phase excitation mode, said W1-2 phase excitation mode, and said 2W1-2 phase excitation mode to drive said stepper motor (25 of fig 4) in said main-scan, see (main scan col.9, lines 48-50).

With respect to claim 6, Hioshino et al. discloses a film scanner (10 of fog 1) wherein said transport table (carrier B of fig 2) is provided detachably with a film holder (film holder B of fig 4) for holding said film, (film shown in fig 2) a position of said film holder to said transport table (carrier A of fig 1) being moveable to change said image to be read.

With respect to claim 7, a film scanner (10 of fig 2), further comprising a rack provided at said transport table (carrier A of fig 2) along said predetermined direction, and a pinion (driver gear 12 of fig 9) attached to an output shaft of said stepper motor (SM motor 26 of fig 4) to engage with said rack.

With respect to claim 8, a film scanner (film scanner 10 of fig 2) provided with an imaging device (line senor 16 of fig 2) for performing a main-scan, see (col.9, lines 48-50), of a film on which an image is formed to scan said image and a scanning mechanism (scanning mechanism shown in fig 2) for moving said film in a sub-scan

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direction perpendicular to said main-scan direction, see (col.9, lines 48-50) with respect to said imaging device, (line sensor 16 of fig 2) characterized in that said scanning mechanism is provided with a transport table (carrier B of fig 2) for supporting said film and transporting it in said sub-scan direction and a transport mechanism for making said transport table move in said sub-scan direction, said transport mechanism is provided with a stepper motor (SM 26 of fig 4) as a source of drive power (power source 30 of fig 4) and a motor drive circuit (25 of fig 4) for pulse driving said stepper motor in steps, and said motor drive circuit is configured to enable micro-stepping control of the stepper motor (SM of fig 26).

With respect to claim 9, Hoshino et al. discloses a film scanner (film scanner 10 of fig 2) for reading an image formed on a film, said film scanner (10 of fig 1) comprising: an imaging device (line sensor 16 of fig 4) that senses a part of said image; a transport table (carrier B of fig 6) that supports said film (film of fig 2); a stepper motor (SM 26 of fig 4) that moves at least one of said imaging device (16 of fig 4) and said transport table (fig 6) in a predetermined direction, so that said imaging device (line sensor 16 of fig 4) can sense the whole of said image (film of fig 2); and a motor drive circuit (26 of fig 2) that pulse-drives said stepper motor (SM of fig 26) in steps, said motor drive circuit (26 of fig 4) controlling an excitation mode to change the step of said stepper motor (SM 26 of fig 4).

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Negussie Worku whose telephone number is 305-5441.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Kimberly Williams** can be reached on 703-305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Negussie Worku
03/10/04


MARK WALLERSON
PRIMARY EXAMINER